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Exchange Rate Arrangements in the Pacific Basin

This article is adapted from the introduction to Exchange Rate Policy and Interdependence: Perspectives from the Pacific Basin *(Reuven Glick and Michael Hutchison, eds., Cambridge University Press, 1994), a collection of thirteen essays originally prepared for the conference "Exchange Rate Policy in Pacific Basin Countries" sponsored by the Center for Pacific Basin Monetary and Economic Studies at the Federal Reserve Bank of San Francisco in September 1992.*

Over the past 20 years, almost all countries in the Pacific Basin have substantially liberalized their financial systems, removing restrictions to domestic and international capital flows. These reforms have led to greater international interdependence, and therefore to more efficient allocation of resources from savers to investors. At the same time, greater international interdependence has led many countries in the region to allow greater exchange rate flexibility in order to insulate themselves from foreign disturbances. Because of the diversity of historical backgrounds, stages of economic development, and financial environments, the Pacific Basin region provides a useful set of country experiences for a comparative study of exchange rate arrangements and their implications for the conduct of monetary policy.

International financial interdependence

Three papers examine the degree of financial integration among Pacific Basin countries and explore possible remaining barriers to integration.

Menzie Chinn (U.C., Santa Cruz) and Jeffrey Frankel (U.C., Berkeley) examine the interest rate linkages of financial assets and the relative influence of the U.S. and Japanese markets in the Pacific Basin over the period 1982–1992. They find that the region is still far from achieving complete financial integration, particularly among the lesser developed countries. For countries with well-developed forward exchange markets, they attribute most of the remaining barriers to integration to currency factors, such as expectations of exchange rate changes or exchange rate premia, rather than to country factors, such as capital controls or differential tax treatment. Although U.S. rates remain the dominant foreign influence for most countries, and, indeed, have strengthened that role over the period, there is some evidence of a greater Japanese role in the countries of Southeast Asia.

As local equity markets have grown in the region, the opportunities for international investors who are seeking higher return or diversification have expanded. Charles Engel (University of Washington) and John Rogers (Pennsylvania State University) explore the extent to which equity markets in the Pacific Basin have equalized real returns on investment opportunities using stock market data over the period 1983–1991. Consistent with the Chinn and Frankel work on interest rates, they find substantial differences in real return prospects for equity investors across countries. Their evidence implies that there are still some restrictions to the flow of financial capital among Pacific Basin countries that prevent the equalization of returns.

In light of prevailing implicit or explicit regulatory controls, Michael Dooley (U.C., Santa Cruz) and Donald Mathieson (International Monetary Fund) question the usefulness of observed domestic interest rates in measuring the degree of capital mobility and extent of international financial market linkages. They construct an alternative measure of capital mobility, not based on observed domestic interest rates, which gives

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results that are sometimes counter to the conventional wisdom about which countries are more integrated with world capital markets.

Choice of exchange rate regimes

Increasing economic interdependence implies that countries are subject to a broader range of shocks. Which exchange rate regime works best under these circumstances?

Stephen Turnovsky (University of Washington) provides a review of recent theoretical literature on exchange rate management and its implications for monetary policy. A common message of these models is that monetary and exchange rate policies cannot be conducted independently in the long run. If the monetary authorities choose to target a particular level or path for the exchange rate, given the foreign inflation rate, this implies a corresponding long-run domestic inflation rate, and hence a loss of control over monetary policy.

What are the advantages of choosing to peg the exchange rate as opposed to allowing it to float? Turnovsky illustrates how the "optimal" choice of exchange rate arrangements depends on a host of economic and political factors, including the degree of capital mobility, structure of the economy, the nature of disturbances, and policymakers' objectives. Practical problems involved in discerning the source of shocks and identifying the relevant structural characteristics, however, make it difficult for policymakers to apply theoretical criteria for adjusting the exchange rate. Thus ultimately the choice of exchange rate regimes by policymakers is an empirical question involving "learning-by-doing."

Four papers analyze individual countries to assess the extent to which greater exchange rate flexibility has provided insulation from foreign disturbances.

Ramon Moreno (Federal Reserve Bank of San Francisco) considers how exchange rate regime shifts in Taiwan and Korea affected their domestic vulnerability to external shocks. Both countries maintained adjustable pegs to the U.S. dollar for most of the 1970s. In the case of Taiwan, large current account surpluses together with liberalization of international transactions necessitated a change to a managed float policy against the dollar in 1979 and a free float in 1989. Korea also allowed its exchange rate to adjust more flexibly by adopting a basket currency peg in the 1980s followed by a more explicit managed float against the dollar in 1990. Using a vector autoregression model, Moreno finds that domestic prices in Korea and Taiwan appear to be more insulated from foreign shocks as a result of the choice of greater exchange rate flexibility.

John Pitchford (Australian National University) analyzes several episodes of major foreign price shocks experienced by Australia and argues that the lack of exchange rate flexibility in response to external price shocks in the 1970s exacerbated Australia's macroeconomic adjustment problems during that period. The flexible exchange rate regime adopted at the end of 1983, he concludes, better insulated the economy from the nominal trade price shocks Australia has traditionally experienced.

New Zealand made a dramatic switch from a fixed exchange rate to a freely floating exchange rate policy in March 1985, after finding that a fixed exchange rate and an independent monetary policy could not be maintained in the wake of the removal of international capital controls in the early 1980s. Arthur Grimes and Jason Wong (Reserve Bank of New Zealand) consider the New Zealand experience and discuss how the exchange rate is currently used as an intermediate target by monetary policymakers for achieving the long-run goal of low inflation. Using a vector error-correction model approach, they find that the dominant influence on inflation in New Zealand has come from the exchange rate and foreign price disturbances, implying that targeting the exchange rate path, rather than the path of money aggregates, indeed represents the preferable operating procedure.

Helen Popper (Santa Clara University) and Julia Lowell (Rand) focus their analysis on the exchange rate regimes of Australia, New Zealand, Canada, and the United States and infer the extent of concern by monetary authorities about the exchange rate by measuring the influence of foreign developments on domestic prices. They find some evidence of exchange rate targeting in the case of Canada, but not for Australia and Japan. There is weak evidence of targeting for the U.S., but only vis-à-vis the yen.

Intervention and sterilization policies

Although most countries in the Pacific Basin have moved towards greater exchange rate flexibility, virtually all central banks in the region actively intervene in the foreign exchange market. The extent to which a central bank can pursue an exchange rate intervention policy independent of monetary policy depends on its ability to sterilize or offset the effects of international reserve changes on the monetary base.

Three papers examine the intervention policies of individual countries in the Pacific Basin.

Reuven Glick (Federal Reserve Bank of San Francisco) and Michael Hutchison (U.C., Santa Cruz) analyze the Bank of Japan's (BOJ) intervention policy and its impact on the control of money aggregates over the post-Bretton Woods period. They show that the BOJ has actively intervened in the foreign exchange market over most of the floating-rate period. They find that the degree of sterilization is high in the short run but much lower in the long run. They suggest that incomplete sterilization of intervention against the rise of the yen in the early 1970s and in the late 1980s contributed to the rapid growth of monetary aggregates during those periods. In the early 1970s this resulted in a surge in inflation. Only an apparent upward shift in money demand seems to have prevented this money growth from resulting in a sharp increase in goods market inflation in the late 1980s.

Sung Kwack (Howard University) examines the extent to which Korea was able to sterilize the effects on its money supply of large current account surpluses in the late 1980s. He concludes that the Bank of Korea was able to sterilize almost all of the effects of foreign reserve changes and to achieve its monetary policy goals. Part of the success of this policy is attributable, however, to remaining restrictions to capital mobility.

Recent models suggest that sterilized as well as unsterilized intervention may influence exchange rates by altering expectations in the exchange market. One way it might do so is by "signalling" market participants about the direction of future monetary policy. Tsutomu Watanabe (BOJ) analyzes how intervention operations by the BOJ during the period 1973–1992 have acted as a signal about the future stance of monetary policy. Watanabe finds that the purchase (sale) of foreign currencies tends to precede a reduction (increase) in the BOJ discount rate. The finding that sterilized intervention to weaken the yen followed expansionary monetary policy suggests that it provides a credible signal about the stance of monetary policy.

Prospects for a yen bloc

The progress toward regional economic and financial integration in Europe and in North America, such as the EMU and NAFTA, have led many to wonder whether a similar economic bloc might form in the Pacific Basin, centered in Japan. There are several definitions of a "yen bloc." Some interpret it as an area in which the yen is used extensively in international transactions. Others interpret it more broadly as a free trade zone or tariff union. It has also been interpreted as referring to a monetary arrangement whereby countries peg their currencies to the yen.

Takatoshi Ito (Harvard University and Hitotsubashi University) reports evidence that countries in Asia are gradually increasing their use of the yen as an invoice currency in international transactions, though they still rely predominantly on the dollar. In addition, Japan uses the yen to invoice its export and import transactions far less than other developed countries use their own national currencies for invoicing international export and import transactions. This finding cannot be explained by Japan's close trade relationship with the U.S. nor by its role as a major importer of raw materials and oil, which are generally priced in dollar terms. While trade between Japan and other Asian countries increased substantially in the late 1980s, there is no apparent evidence of an intraregional trade bias after accounting for factors like economic growth and proximity.

Michael Melvin, Michael Ormiston, and Bettina Peiers (Arizona State University) evaluate the portfolio demand for international currencies and assess the desirability of forming a yen currency area from the point of view of investors in the region. Their portfolio analysis indicates that investors generally prefer the distribution of returns associated with holding assets denominated in U.S. dollars. Ito also cites econometric evidence that the currencies of the smaller countries in Asia are pegged to the dollar de facto and with few exceptions place relatively little weight on the yen. This is consistent with the observation that these countries typically export more to the U.S. than to Japan. On balance, Ito and Melvin, et al., conclude there is little evidence of a yen bloc at present, nor much likelihood of its forming in the near future.

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